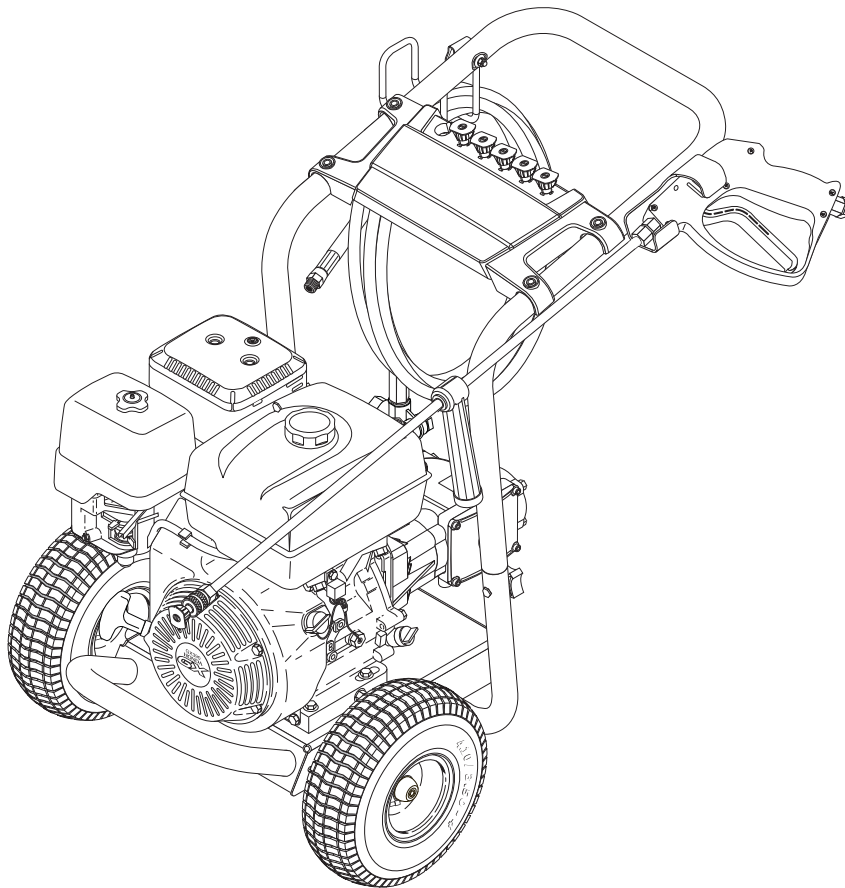


SERVICE MANUAL

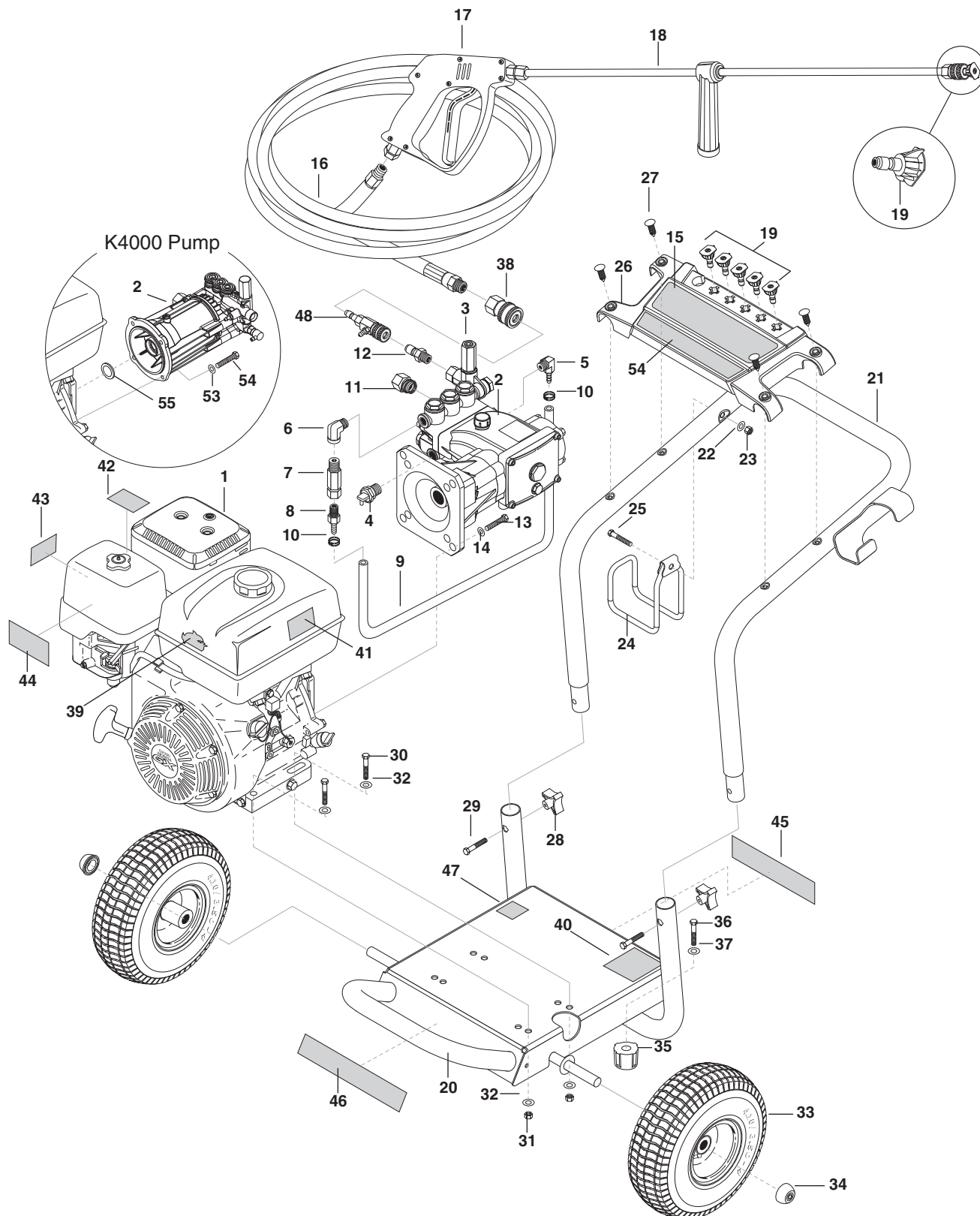


MODEL #	ORDER #
XPERT-HD 3.8/35 P	1.107-108.0
XPERT-HD 3.5/40 P	1.107-219.0
PD4-35324	1.107-096.0
PD4-40324	1.107-220.0
DA-383539	1.107-102.0
DA-354039	1.107-218.0
DD-383537	1.107-137.0
DD-354037	1.107-221.0
RG-364037	1.107-237.0

CONTENTS

Exploded View	4
Exploded View Parts List	5
S.3 Pump and Parts List	7-8
K4000 Pump and Parts List	9
UU1 Universal Unloader Exploded and Parts List	10
VBA Unloader Exploded and Parts List	11
Troubleshooting	12-13
Preventive Maintenance	14
Oil Change Record	15

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.750-580.0	Engine, Honda, GX390 UT2QA2 , 389cc	1	17	8.750-247.0	Trigger Gun Model M407 (All models except RG)	1
2	See Page 7	S.3 Series Pump (All models except RG)	1		9.112-017.0	AL5 Gun 4000 PSI (RG Model)	1
	See Page 9	K4000 Pump (RG Model)	1	18	8.783-040.0	Wand, 44" With Side Grip (All models except RG)	1
3	See Page 10	UU1 Unloader (3500psi Models except RG)	1		9.112-527.0	Lance-AI Quick Connect - Male 4000 PSI (RG Model)	1
	See Page 11	VBA Unloader (4000psi Models except RG)	1	19	9.104-030.0	Quick Connect Nozzle Kit (040) (3500psi & RG Models)	1
4	8.707-256.0	Pump protector, 1/2" (All models except RG)	1		9.802-295.0	▲Nozzle, 0003, Red	1
5	8.706-958.0	Hose barb, 1/4" Barb X 1/4" 1 Pipe, 90 Drg (All models except RG)	1		9.802-296.0	▲Nozzle, 0015, Yellow	1
6	8.706-207.0	Elbow, 3/8" Street 90 Deg. 1 Steel (All models except RG)	1		9.802-297.0	▲Nozzle, 0025, Green	1
7	9.802-190.0	Valve, Ez start, 3/8 Mpt X 1/8 Fpt (All models except RG)	1		8.932-298.0	▲Nozzle, 0040, White	1
8	8.706-940.0	Hose barb, 1/4" Barb X 1/8" ML Pipe (All models except RG)	1		9.802-311.0	▲Nozzle, Black, Soaper	1
9	9.802-254.0	Hose 1/4" (All models except RG)	1	19	8.904-154.0	Quick Connect Nozzle Kit (035) (4000psi Models)	1
10	6.390-126.0	Hose clamp (All models except RG)	2		8.712-337.0	▲Nozzle, 0003.5, Red	1
11	9.802-146.0	Swivel, 1/2" Mp X 3/4", Ghf W/Strainer (All models except RG)	1		8.712-338.0	▲Nozzle, 1503.5, Red	1
12	9.802-171.0	Nipple, 3/8" X 3/8", Mpt St (All Models except RG)	1		8.712-339.0	▲Nozzle, 2503.5, Red	1
13	9.802-722.0	Bolt, 3/8" X 1-1/4", Nc HH (All models except RG)	4		8.712-340.0	▲Nozzle, 4003.5, White	1
14	9.802-814.0	Washer, 3/8", Lock Split Ring (All models except RG)	4		8.712-398.0	▲Nozzle, Black, Soaper	1
15	9.138-437.0	Karcher branding label (Xpert HD)	1	20	9.115-109.0	Frame O-Blk Wrinkle	1
	9.138-439.0	Landa branding label (PD Models)	1	21	9.140-151.0	Assy Holder, Handle Black	1
	9.138-440.0	Hotsy branding label (DA Models)	1	22	9.198-002.0	5/16" SAE F/W zinc .062 Thk (All models except RG)	1
	8.750-881.0	Shark branding label (DD & RG Models)	1		8.718-980.0	Washer, 5/16" Flat (RG Model)	1
16	8.739-026.0	Hose, 3/8" X 50' 1 Wire Tuff-Skin (PD Models)	1	23	9.802-776.0	Nut, 5/16, ESNA, Nc	1
	8.739-011.0	Hose, 3/8" X 50' 1 Wire Tuff-Skin (DA Models)	1	24	9.142-315.0	Hose hanger Blk Wrinkle	1
	8.739-021.0	Hose, 3/8" X 50' 1 Wire Tuff-Skin (Xpert HD and DD Models)	1	25	9.802-716.0	Bolt 5/16" X 2" NC, HH	1
	9.162-323.0	HP Hose DN8/50'/4000 (RG Model)	1	26	9.134-022.0	Name plate	1
				27	9.196-049.0	Nylon Rivet	4
				28	7.767-003.0	1/4"-20 Star knob	2
				29	9.196-307.0	1/4"-20 x 1-1/2" GR 2, Hex bolt zinc	2
				30	9.802-727.0	Bolt, 3/8" X 1-3/4", TAP (All models except RG)	4
					9.186-021.0	3/8-16 X 2 GR 5 HHCS Zinc (RG Model)	4
				31	9.802-779.0	Nut 3/8" (All models except RG)	4
					9.197-003.0	3/8-16 NE Nylon Insert (RG Model)	4
				32	9.802-807.0	Washer, Flat 3/8" (All models except RG)	8
					9.198-004.0	3/8 USS F/W Zinc (RG Model)	8
				33	9.802-270.0	Wheel & Tire Assy, 10" Steel Rim W/Tube	2

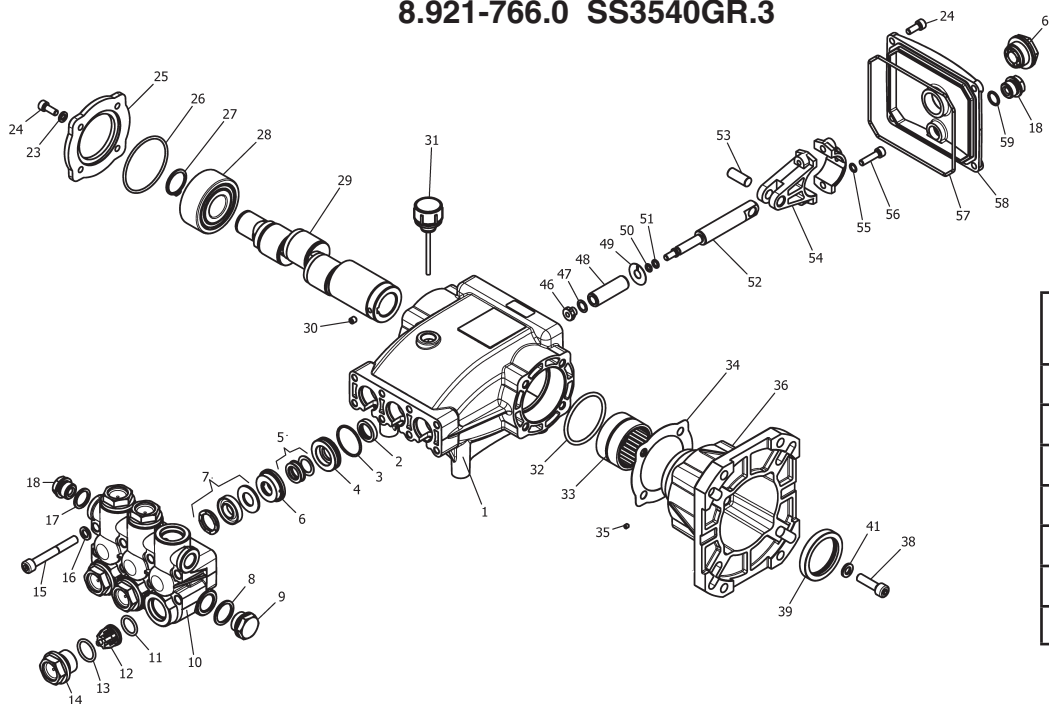
EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
34	9.182-506.0	Cap black plastic, 5/8" Fastener	2
35	9.183-411.0	Rubber buffer	2
36	9.802-714.0	Bolt, 5/16" X 1-3/4"	2
37	8.718-980.0	Washer, 5/16", Flat	4
38	9.802-166.0	Coupler, 3/8" Female, Brass 1	
	8.702-088.0	▲ O-Ring, Viton, 3/8" (All models except RG)	1
39	9.138-438.0	Shark branding label (DD-383537 & RG Models)	1
40	8.930-124.0	Label, Intended for Outdoor Use (All models except RG)	1
	9.801-594.0	Rating Plate, RG-364037	1
41	9.800-008.0	Label, Danger Cool Engine (All models except RG)	1
42	9.800-006.0	Label, Hot/Caliente (All models except RG)	1
43	8.751-096.0	Label Regulation 4442.6	1
44	8.783-034.0	Label, Quick Start Guide ww1 (All models except RG)	1
	9.138-423.0	Quick Instruction Guide (RG Model)	1
45	8.750-809.0	Label, Operator Warnings (All models except RG)	1
	8.783-035.0	Label, Operation Warnings (RG Model)	1

ITEM	PART NO.	DESCRIPTION	QTY
46	8.783-036.0	Label, Warning Pictogram (All models except RG)	1
47	8.783-038.0	Label, Universal DB Rating, 1 Ear Protection, Trilingual (All models except RG)	1
48	9.802-216.0	Injector, Chem, Non Adj, 3-5 GPM, 0.083 (All models except RG)	1
49	6.388-216.0	▲ Hose DN 5 (All models except RG)	1
50	5.731-652.0	▲ Filter with weigh (All models except RG)	1
	4.862-032.0	Filter chemistry regulation (RG Model)	1
51	9.802-959.0	▲ Key, 0.247 Sqr x 2.125" (All models except RG)	1
52	8.753-555.0	Label, Rate Specs, High (RG Model)	1
53	9.802-813.0	Washer, 5/16" Split Ring Lock, Zinc (RG Model)	1
54	6.965-007.0	5/16-24X1 GR 5 SHCS THRU Hardener (RG Model)	1
55	6.362-612.0	O-Ring seal 24,77x5,33-NBR 70 (RG Model)	1
		▲ Not Shown	

S.3 PUMP EXPLODED VIEW

8.751-195.0 KS4040GR.3 8.751-194.0 KS3540GR.3
8.751-177.0 LS4040GR.3 8.751-176.0 LS3540GR.3
8.751-184.0 HS4040GR.3 8.751-183.0 HS3540GR.3
8.921-766.0 SS3540GR.3



TORQUE SPECS

Item #	Ft.-lbs
14	75
15	30
24	7.6
38	10
46	7
56	13

S.3 PUMP EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.751-217.0	Crankcase	1	26	8.717-225.0	O-Ring Ø 2.62 x61.6	1
2*	See Kit Below	Plunger Oil Seal	3	27	9.802-914.0	Snap Ring	1
3*	See Kit Below	O-Ring Ø1.78 x 31.47	3	28	9.803-168.0	Double Row Ball Bearing	1
4*	See Kit Below	Pressure Ring	3	29	9.803-151.0	Crankshaft (3540G.3)	1
5*	See Kit Below	U-Seal, 15mm	3		9.803-152.0	Crankshaft (4040G.3)	1
6*	See Kit Below	Intermed. Ring 15mm	3	30	9.802-945.0	Set Screw	1
7*	See Kit Below	U-Seal, 15mm	3	31	9.802-921.0	Oil Dip Stick	1
8	9.803-199.0	Copper Washer 1/2"	1	32	9.804-581.0	O-Ring Ø 3.53 x 55.56	1
9	9.802-926.0	Brass Plug, 1/2"	1	33	9.803-161.0	Needle Roller Bearing	1
10	8.751-218.0	Manifold Housing	1	34	8.751-230.0	Gasket 1	
11*	9.803-191.0	O-Ring Ø2.62 x 17.13	6	35	8.717-544.0	Screw, Set	1
12*	See Kit Below	Valve Assembly	6	36	9.803-183.0	Engine Flange	1
13*	9.803-193.0	O-Ring Ø2.62 x 20.29	6	38	9.803-240.0	Flange Screw	4
14	9.802-928.0	Valve Plug	6	39	9.803-142.0	Crankshaft Seal	1
15	9.802-938.0	Manifold Stud Bolt	8	41	9.803-221.0	Spring Washer	4
16	9.802-884.0	Washer 8		46*	See Kit Below	Plunger Nut, M6	3
17	9.803-198.0	Copper Washer 3/8"	1	47*	See Kit Below	Washer, Copper, 9.2 x 13.5	3
18	9.802-925.0	Brass Plug 3/8"	2	48*	See Kit Below	Plunger, 15mm	3
23	9.803-201.0	Washer, M6 x 16	4	49*	See Kit Below	Copper Spacer	3
24	9.802-939.0	Hexagonal Screw	9				
25	9.803-184.0	Closed Bearing Housing	1				

S.3 PUMP EXPLODED VIEW PARTS LIST

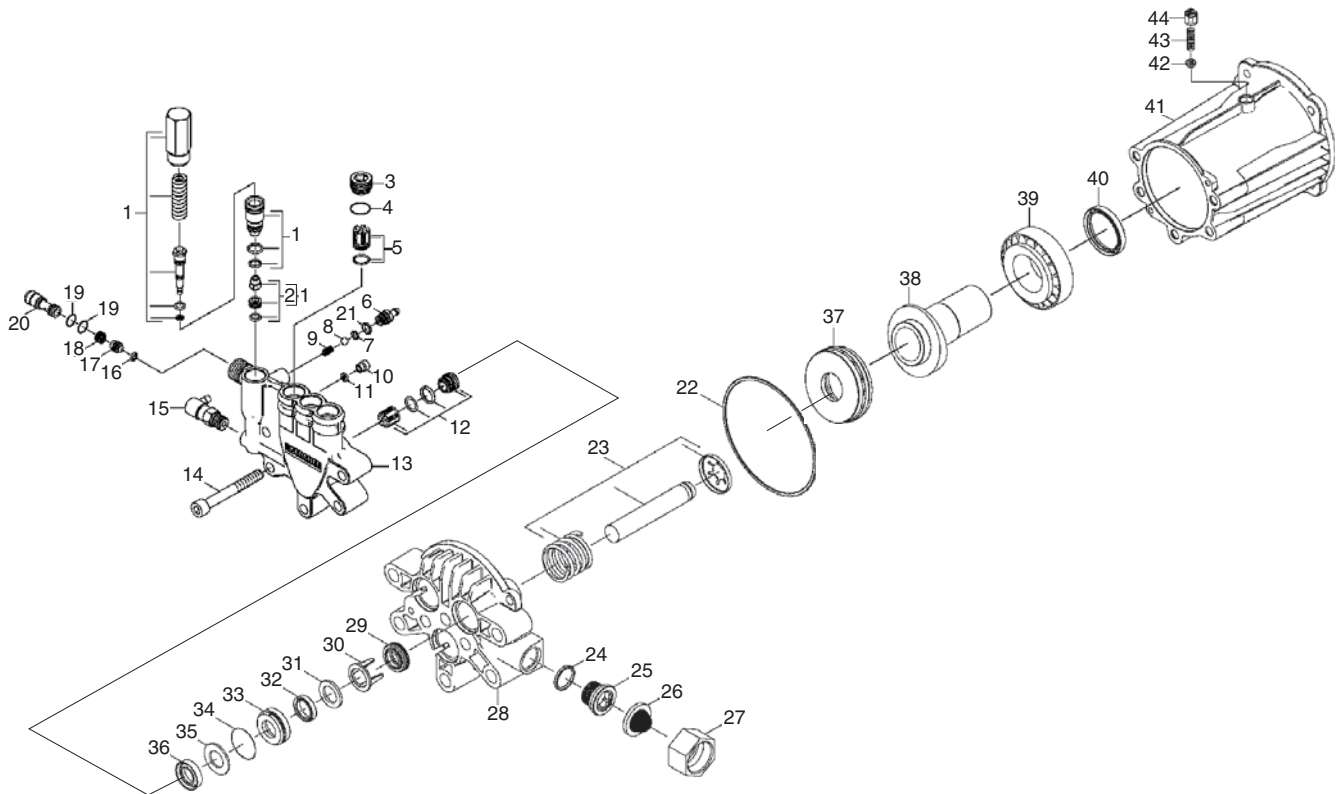
ITEM	PART NO.	DESCRIPTION	QTY
50*	See Kit Below	O-Ring Ø1.78x5.28	3
51*	See Kit Below	Teflon Ring	3
52	8.751-225.0	Plunger Rod	3
53	8.751-228.0	Connecting Rod Pin	3
54	9.803-158.0	Connecting Rod	3
55	9.803-218.0	Spring Washer	6
56	9.803-238.0	Connecting Rod Screw	6
57	8.933-016.0	O-Ring 2.62 x 126.67	1
58	8.751-229.0	Crankcase Cover	1
59	9.803-197.0	O-Ring, Ø 1.78 x 14	1
60	9.803-202.0	Sight Glass, G3/4	1

* Part available in kit (See below)

REPAIR KIT NUMBER	8.725-358.0	8.725-359.0	8.933-023.0	9.802-603.0	9.802-609.0
KIT DESCRIPTION	Plunger U-Seal 15mm	Complete U-Seal Packing 15mm	Plunger 15mm	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	3, 5, 7	3, 4, 5, 6, 7	46, 47, 48, 49, 50, 51	11, 12, 13	2
NUMBER OF CYLINDERS KIT WILL SERVICE	3	1	1	6	3

K4000 PUMP EXPLODED VIEW

9.120-019.0



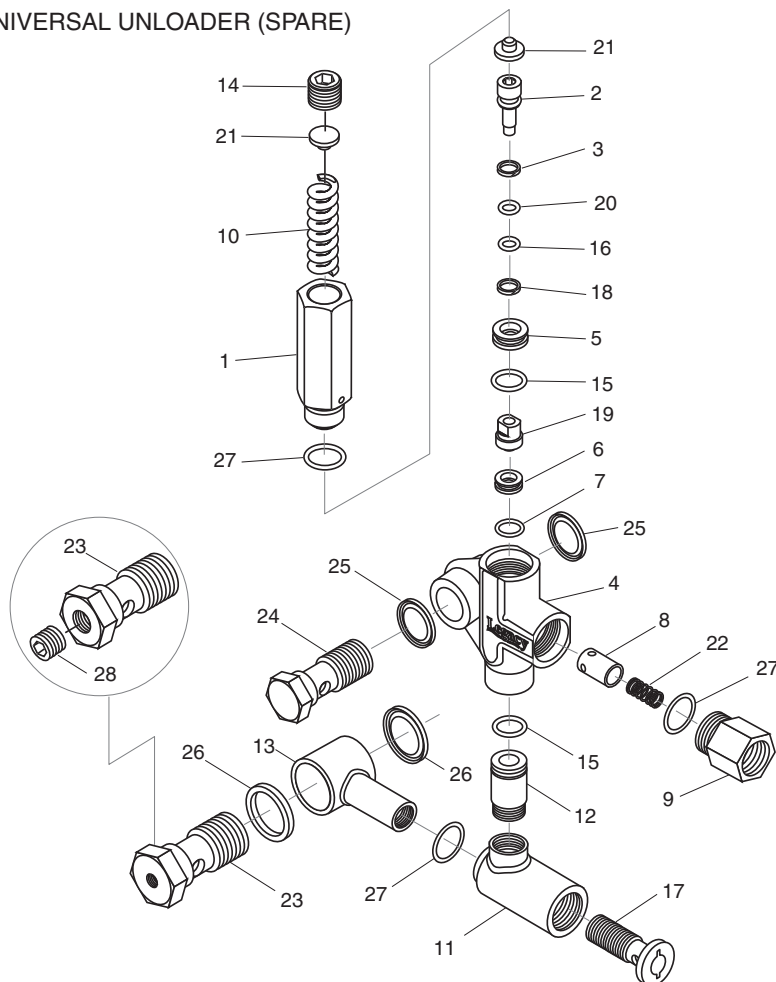
ITEM	PART NO.	DESCRIPTION	QTY
1	9.175-011.0	Unloader Assy (9.120-019.0) Pump	1
2	9.139-359.0	Spare parts set seat excess-current	1
3	9.154-047.0	Plug M22x1	3
4	6.362-481.0	O-Ring seal 14,0 x 2,0 NBR 80	3
5	2.884-512.0	Valve (Set With 3 pc.)	1
6	5.443-448.0	Nipple chemistry	1
7	6.362-175.0	O-Ring seal 5,28x 1,78	1
8	7.401-908.0	Sphere 7 G300 -1.4301 DIN 5401	1
9	5.332-258.0	Helical spring	1
10	9.154-049.0	Plug M10x1	1
11	9.151-014.0	Rupture Disk, 5000 PSI, Blue	1
12	9.139-364.0	Spare Part List 019 (Set With 3 pc.)	1
13	9.135-012.0	Cylinder Head-Machined	1
14	7.306-072.0	Cylinder head screw M10X 80-8.8-A3E IS	5
15	9.184-013.0	Thermal Relief Valve	1
16	6.362-851.0	O-Ring seal 4 x 2 NBR 90	1
17	9.184-012.0	Valve Pin-Back Pressure	1
18	9.157-006.0	Spring-Valve Pin	1
19	6.362-384.0	O-Ring seal 9x1,5 - NBR 70 2	1
20	5.769-141.0	Nozzle insert	1
21	6.362-451.0	O-Ring seal 8,0 x 1,0	1
22	6.363-067.0	O-Ring seal 92X2 NBR 70	1

ITEM	PART NO.	DESCRIPTION	QTY
23	9.139-358.0	Spare Part of Piston (Set With 3 pc.)	1
24	6.362-390.0	O-Ring seal 15,6 X 1,78	1
25	9.134-019.0	Male Adapter	1
26	9.181-005.0	Filter Seal-Hose Connector	1
27	9.155-013.0	Female Hose Connector	1
28	9.135-013.0	Piston Guide-4000 psi	1
29	6.365-340.0	Grooved ring 14X22X5/7	3
30	9.182-356.0	Spacer	3
31	9.177-311.0	Back Ring-Low Pressure Seal	3
32	6.365-438.0	Compact seal	3
33	9.155-014.0	Housing-Low Pressure Seal	3
34	6.362-376.0	O-Ring seal 24,0 X 1,5	3
35	9.177-312.0	Back Ring-High Pressure Seal	3
36	9.177-313.0	Seal high pressure	3
37	4.401-096.0	Deep groove ball thrust bearing only for	1
38	9.165-256.0	Swash Plate-Machined	1
39	6.401-225.0	Taper roller bearing 41	1
40	7.367-011.0	Radial shaft seal ring A40x52x7-NBR DIN	1
41	9.135-014.0	Oil Housing-Machined	1
42	5.582-080.0	Valve disc	1
43	5.332-209.0	Helical spring	1
44	5.030-533.0	Moulded part	1

UU1 UNLOADER EXPLODED VIEW

9.175-018.0

UU1 3500PSI, UNIVERSAL UNLOADER (SPARE)



UU1 UNLOADER EXPLODED VIEW PARTS LIST

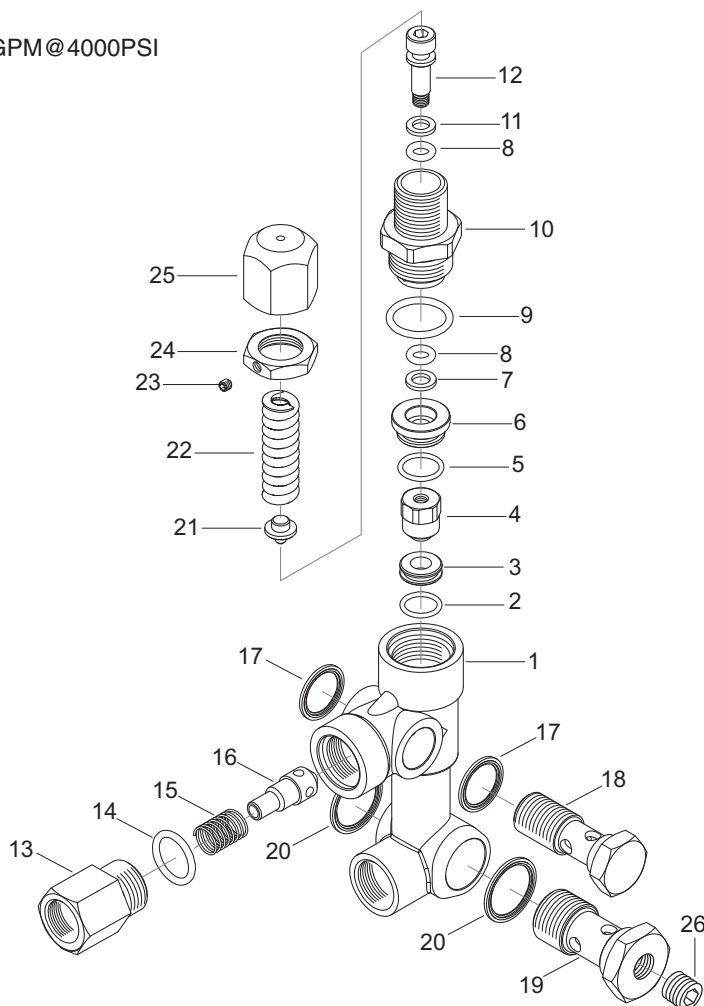
ITEM	PART #	DESCRIPTION	KIT	QTY
1	8.751-394.0	Piston Housing	D	1
2		Piston	C, D	1
3		Piston O-Ring Back Up	A, D	1
4	8.749-796.0	Main Block		1
5	9.152-372.0	Piston Ring	D	1
6		Ball Seat	C, D	1
7		O-Ring 10.5 ID x 1.5 CS	A,C,D	1
8		Plunger	B	1
9	9.152-016.0	Plunger Housing		1
10		Bypass Spring	C, D	1
11	9.149-001.0	Low Pressure Port		1
12	9.152-017.0	Sliding Connector, 30mm		1
	8.762-005.0	Sliding Connector, 40mm, Long		1
13	9.149-002.0	Sliding Connector H 1/2"		1
	9.149-005.0	Sliding Connector H 3/8"		1
14	9.196-011.0	Plug 5/8 -18 UNF	D	1
15		O-Ring 12 ID x 2 CS	A, D	2
16		O-Ring 6 ID X 2 CS	A, D	1

ITEM	PART #	DESCRIPTION	KIT	QTY
17	9.149-006.0	Sliding Connector Guide		1
18		O-Ring Backup 6 x 1.45 x 1.68	A, D	1
19		Ball Housing Assy	C, D	1
20		O-Ring 6.75 x 1.78 BN80	A, D	1
21		Spring Seat	C, D	2
22		Plunger Spring	B	1
23	8.917-699.0	Banjo Bolt 1/2" Short		1
	8.917-700.0	Banjo Bolt 1/2"-1/4" NPT Short		1
24	8.917-698.0	Banjo Bolt 3/8" Short		1
25	9.802-893.0	Seal Washer 3/8"		2
26	9.803-921.0	Seal Washer 1/2"		2
	9.802-893.0	Seal Washer 3/8"		2
27		O-Ring 15 ID x 2CS	A,B,D	3
28	8.706-865.0	Plug, 1/4" Countersunk		1
Kit A	9.104-038.0	O-Ring Repair Kit		
Kit B	9.104-039.0	Outlet Kit		
Kit C	9.104-040.0	Stem Basic Kit		
Kit D	8.920-045.0	UU1 Complete Stem Kit		

VBA UNLOADER EXPLODED VIEW

9.803-900.0

UNLOADER (VBA), 6.6GPM@4000PSI



VBA UNLOADER EXPLODED VIEW PARTS LIST

ITEM	PART #	DESCRIPTION	KIT	QTY	ITEM	PART #	DESCRIPTION	KIT	QTY
1		Body Valve (KG)		1	17	9.802-893.0	Seal Washer 3/8"		2
		Body Valve (KS)		1	18	9.803-919.0	Banjo Bolt 3/8" Solid Cap		1
2		O-Ring	A, C	1	19	9.803-920.0	Banjo Bolt 1/2", w 1/4" Pilot		1
3		Seat	C	1	20	9.803-921.0	Seal Washer 1/2"		2
4		Ball, Sub Assy	C	1	21		Plate	C	1
5		O-Ring	A	1	22		Spring	C	1
6	9.803-907.0	Guide Bushing		1	23	8.933-021.0	Set Screw		1
7		Teflon Ring		1	24	9.803-925.0	Nut		1
8		O-Ring	A	1	25	9.803-926.0	Brass Handle		1
9		O-Ring	A	2	26	8.706-865.0	Plug, 1/4" Countersunk		1
10	9.803-911.0	Connector		1	Kit A	8.717-672.0	O-Ring Repair Kit		
11		Teflon Ring	A	1	Kit B	8.717-673.0	Outlet Kit		
12		Stem	C	1	Kit C	8.717-674.0	Stem Basic Kit		
13	9.803-914.0	Connector Female		1					
14		O-Ring	A, B	1					
15		Spring	B	1					
16		Poppet	B	1					

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW OPERATING PRESSURE	Insufficient water supply. Closed faucet. Inlet hose kinked	Use larger garden hose; clean inlet water screen. Open faucet.
	Clogged inlet hose strainer	Check plumbing system for leaks. Retape leaks with teflon tape.
	Faulty or mis-adjusted unloader valve	Adjust unloader for proper pressure. Install repair kit when needed. Call local distributor.
	Worn packing in pump	Call Dealer Customer Support.
	Machine has been stored in freezing temperatures	Thaw out machine completely, including hose, spray gun and wand.
	Slow engine RPM	Call local distributor.
FLUCTUATING PRESSURE	Worn or dirty pump valves	Call local distributor.
	Nozzle is obstructed	Blow out or remove debris with fine needle.
	Pump sucking air, inlet hose leaking	Check that all hoses and fittings are airtight. Turn off machine and trigger spray gun until a steady flow of water emerges through the nozzle.
	Insufficient water supply	Turn water on full force. Check garden hose for kinks, leaks or blockage.
PRESSURE LOW AFTER PERIOD OF NORMAL USE	Nozzle worn	Replace nozzle.
	Unloader valve worn	Replace unloader valve.
ENGINE WILL NOT START OR STOPS WHILE OPERATING	Low oil shutdown	Fill engine with oil.
	Out of gas	Fill fuel tank.
	Water in gasoline	Drain gas tank; fill with clean fuel.
ENGINE IS OVERLOADED	Nozzle partially blocked	Clean nozzle.
	Excessive pressure from high engine RPM	Adjust engine throttle to lower RPM.
WATER OR OIL LEAKING FROM BOTTOM OF PUMP	A small amount of leaking is normal	If excessive leaking occurs, Call local distributor.
PRESENCE OF WATER IN PUMP OIL	Water sprayed at machine	Change oil. Direct spray away from machine.
	High humidity in air	Check and change oil twice as often.
	Piston packing worn. Oil seal worn.	Call local distributor.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
ENGINE OPERATES FOR 15 MINUTES THEN STOPS	Not enough gas or engine oil	Fill tank with gas. Check oil level.
	Vapor lock developed by heat of day	Keep gas tank full to avoid vapor locking.
	Obstruction in fuel filter	Clean or replace fuel filter.
ENGINE LACKS POWER	Dirty air filter	Replace air filter.
ENGINE FALTERS	Choke is opened too soon	Move choke to halfway position until engine runs smoothly.
WATER DRIPPING FROM UNDER PUMP	Piston packing worn	Call local distributor.
	O-Ring plunger retainer worn	Call local distributor.
	Cracked piston	Call local distributor.
OIL DRIPPING	Oil seal worn or damaged	Call local distributor.
WATER LEAKING FROM PUMP PROTECTOR	Spray gun closed with machine running 5 minutes or longer	Open spray gun or turn off machine.
	Excess water supply pressure	Place a pressure regulator at end of 50' garden hose.
NO DETERGENT	Detergent suction tube not properly connected to machine	Check connection.
	Detergent is too thick	Dilute detergent. For best results, use manufacturers detergent.
	Detergent filter valve is at lowest setting	Set detergent filter valve to a higher setting.
	Filter on detergent suction tube is clogged	Run warm water through filter to remove debris.
	Damaged or clogged detergent suction tube	Remove obstruction or replace detergent suction tube.
	A high pressure nozzle is attached.	Replace with black detergent nozzle.
	Discharge nozzle is obstructed	Blow out or remove debris with fine needle.
GARDEN HOSE CONNECTION LEAKS	Loose fittings	Tighten fittings.
	Missing/worn rubber washer	Insert new washer.
SPRAY WAND LEAKS	Spray wand not properly attached	Slide the spray wand into the gun. Turn the wand collar clockwise onto the spray gun threads until tight.
	Broken o-ring	Call local distributor and order an o-ring.
PUMP IS NOISY	Pump is sucking air	Check that hoses and fittings are air tight. Turn off machine and purge pump by squeezing trigger gun until a steady flow of water emerges through nozzle.

PREVENTATIVE MAINTENANCE

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions. Check pump oil (All Models except RG) and engine oil level before first use of your new pressure washer.

MAINTENANCE SCHEDULE		
Engine Oil	Inspect	Daily
	Change	First month or 20 hours. Every 100 hours or every 6 months after first month
	Filter	Every 50 hours
Air Cleaner/Filter	Inspect	Every 50 hours
	Clean	Monthly
Engine Fuel Filter		500 hours or 6 months
Spark Plug Maintenance		300 hours or annually
Clean Fuel Tank(s)		Annually
Replace Fuel Lines		Annually
Pump Oil (All Models except RG)	Inspect	Oil level daily
	Change	After first 50 hours, then every 500 hours or annually
Replace High Pressure Nozzle		Every 6 months
Replace Quick Connects/O-Rings		Annually/As needed
Clean Water Screen/Filter		Weekly
Replace HP Hose		Annually (if there are any signs of wear)

OIL CHANGE RECORD

Check pump oil (All Models except RG) and engine oil level before first use of your new pressure washer.

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

